

U.S. Patent Application No. 10/539,603
Reply to Office Action of September 21, 2006

Docket No.: L4050.0004

AMENDMENTS TO THE CLAIMS

Claims 1 to 7 (Cancelled).

8. (New) A method of calling service among devices in a home network, the method comprising:

a service calling party obtaining a service handle of a called service by using characteristic information of the called service and sending a service call request message to a called party using the service handle obtained;

a protocol stack of the called party, after receiving the service call request message, determining whether or not the called service exists at the called party based on the service handle of the called service contained in the service call request message and determining whether or not the called service has established a renting relationship with the service calling party, wherein if a renting relationship is established, the called party sends a service call response message containing a service call result to the service calling party; otherwise, the process is ended; and

a protocol stack of the service calling party, after receiving the service call response message, determining whether or not a calling service exists in the calling party based on a service handle of the calling service contained in the service call response message and determining whether or not the calling service has established a renting relationship with the called party, wherein if a renting relationship is established between the calling service and the calling party, the service calling party and the called party begin an interacting process of a service call; otherwise, the process is ended.

9. (New) The method according to claim 8, wherein each of the service handle is provided after service registration of a corresponding service is completed and uniquely identifies the corresponding service.

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10. (New) The method according to claim 8, wherein, when the service calling party obtains the service handle of the called service, the service calling party searches for whether or not the called service exists in the protocol stack of the calling party using the characteristic information of the called service;

if the called service exists in the protocol stack of the calling party, the service handle of the called service is returned, and the search is ended; or

if the called service does not exist in the protocol stack of the calling party, the service calling party searches for whether or not the called service exists in other home network devices using the characteristic information of the called service, wherein if the called service exists in at least one of the other home network devices, the service handle of the called service is returned, and the one of the other home network devices is set as the called party; otherwise, the process is ended.

11. (New) The method according to claim 8, wherein:

the service calling party sends service call request message to the called party through the protocol stack of the service calling party and the protocol stack of the called party sequentially; and

after receiving the service call request message, the called party returns the service call response message containing the characteristic information of the called service required by the service calling party to the service calling party through the protocol stack of the called party and the protocol stack of the service calling party sequentially.

12. (New) The method according to claim 11, wherein the protocol stack of the service calling party and the protocol stack of the service called party process the service call request message and the service call response message by using a service call request call-back function and a service call response call-back function, which are provided by the called service and the calling service respectively.

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13. (New) The method according to claim 12, wherein, at the time of service registration, the service call request call-back function and the service call response call-back function are transferred respectively to the protocol stacks, by an application corresponding to the service registration.

14. (New) The method according to claim 8, further comprising:

after the service calling party or the called party determines that the service calling party has established a renting relationship with the called party, determining whether or not the number of which the service is called currently exceeds a parallel-sending control threshold of the called service,

wherein the called party sets the service call result as denying-call, if the parallel-sending control threshold is exceeded; or the called party sets the service call result as allowing-call, if the parallel-sending control threshold is not exceeded.

15. (New) A method of making a service call among a plurality of devices in a home network, the method comprising:

obtaining a service handle of a called service using characteristic information of the called service;

sending a service call request message to a called party, the service call request message containing the service handle;

determining whether or not the called service exists at the called party based on the service handle;

determining whether or not the called service has established a renting relationship with a service calling party, wherein if a renting relationship is established, a service call response message containing a service call result is sent to the service calling party; otherwise, the process is ended; and

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determining whether or not a calling service exists in the calling party based on a service handle of the calling service contained in the service call response message; and

determining whether or not the calling service has established a renting relationship with the called party, wherein if a renting relationship is established between the calling service and the calling party, the service calling party and the called party begin an interacting process of the service call; otherwise, the process is ended.

16. (New) A method of making a service call among a plurality of devices in a home network, the method comprising:

sending a service call request message to a service called party through a protocol stack of a service calling party and a protocol stack of the called party; and

in response to the service call request message, returning a service call response message to the service calling party through the protocol stack of the called party and the protocol stack of the service calling party;

wherein the service call request message contains a service handle identifying a called service, and wherein the service call response message contains a service handle identifying a calling service.